

2014

Mobile Radiography Radiology Information System by AMT/EMD

Mobile RIS is specifically designed for the mobile radiography industry



EMD SYSTEMS



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MMMRISV1-1



Industry: Mobile Medical Imaging

Product Scope Overview: This is a Radiology Information System (RIS) that has been designed from the ground up to meet the specific needs of the mobile medical imaging industry. This new product is comprised of all of the traditional components found in a RIS with the addition of fleet management, tech management, Imaging equipment management, and mobile modality work list.

SOFTWARE DEVELOPMENT

Software Development Overview: This application is developed in a modular manner in order to facilitate new and future functionality.

This product is a web based application that provides the ability to function from any HTML5 compatible web browser running from any device such as a smart phone, laptop (PC or MAC), or tablet.

Key Features:

1. **Patient Chart (register and update patient demographics and list all activity)**
 - a. Patient Demographics
 - i. Includes family contacts (Primary, secondary, etc.)
 - ii. Includes ambulatory status (bed ridden, wheel chair, stroller, stands with assistance, etc.)
 - b. Patient Residence – This notes the Nursing Home information
 - c. Patient Insurance
 - d. Patient Study History
 - i. Includes x-ray unit #, # of images, Technical factors (distance, mAs, KVP,)
 - e. Ordering Physician History
 - f. Pre-Orders
 - g. Documents
 - i. Patient Level
 - ii. Exam Level
 - h. Radiology Reports
 - i. Notes
 - j. Follow Ups
 - k. Alerts
 - i. Allergies
 - ii. Fall Risk
 - l. Payment History
 - m. Audit Log

- 2. Appointment management**
 - a. Multiple Studies per appointment
 - b. Status Driven Workflow (Pre-Order > Scheduled > Confirmed > Dispatched > Acknowledged > In Progress > Complete)
 - c. Appointment Edit
 - i. Edit exams
 - ii. Add or remove exams
 - iii. Reschedule Appointment
 - d. Dispatching orders
 - i. manually assigning
 - ii. GPS Assistance – closest unit
 - iii. Dispatches to the Unit (vehicle) and notifies the assigned tech.
 - e. Tech Appointment Management
 - i. Tech receives an Appoint Schedule and Unit assignment
 - ii. Unit assignment schedule
 - iii. After tech accepts the appointment it has a status of “Acknowledged”
- 3. Truck management**
 - a. Unit details (Unit #, make, model, VIN, Plate #, Color)
 - b. Maintenance
 - i. Maintenance requests
 - ii. Maintenance logs
 - iii. Maintenance schedule
 - c. X-Ray Unit on board
 - d. assigned tech schedule
 - e. GPS Data
 - i. Current Location
 - ii. Location History
 - f. Fuel Log
 - g. Inventory Control
- 4. X-Ray Unit Management**
 - a. Unit details (Unit #, Make, Model, Serial #, Modality Type, Date put in service, Support contact, IP, DICOM Details)
 - b. Maintenance
 - i. Maintenance requests
 - ii. Maintenance logs
 - iii. Maintenance schedule
 - c. QA Logs worklist supply to XRAY system (MWL)
- 5. Modality Work List (MWL)**
 - a. Provides a real-time DICOM MWL server
 - b. Remote application for the X-Ray Units – replicated MWL over any internet connection without the need for a VPN.

6. **Appointment reminder**
 - a. Voice and SMS – (Hardware Required)
 - b. Email
 - c. Remind patient, resident facility, primary contact.
7. **Radiology Reports Tracking -**
 - a. Report Tracking
 - b. Report Status – Pending, Outstanding, and Approved
 - c. Report Input
 - i. HL7 ORM
 - ii. B2B
 - iii. Scanning
 - iv. Importing
 - d. Report Delivery
 - i. HL7 ORM
 - ii. B2B
 - iii. Printing
 - iv. Faxing
8. **Referring Physician / Care Portal**
 - a. Request Appointments
 - b. Create orders
 - c. Approve order
 - d. Tracking orders
 - e. Radiology Report Review (interface required)
9. **Patient Portal**
 - a. Online order
 - b. Demographic update
 - c. Insurance update
 - d. View reports
 - e. Request Appointment
 - f. Online payment
10. **Billing Interface (quick way to deliver completed exams to billing system)**
 - a. HL7 ADT
 - b. HL7 ORM
 - c. HL7 DFT
11. **Billing Module**
 - a. Insurance claims
 - b. Invoices
 - c. Invoice payment tracking
 - d. contract payment and tracking
 - e. Accounts Receivable
 - f. Account Credits / Overpayments

Included Features:

1. Web bases application: The system will be web based operating on any platform: Windows, Mac, or Android.
2. Deployability: The system can be deployed in a multitude of environments that can be scaled in accordance with the individual deployment requirements'. The scale can range from a single workstation class standalone local server to an offsite data center hosted in a cloud based, virtualized infrastructure.
3. Coding Subsystems: The system will facilitate the use of standardized coding systems such as:
 - a. AMA CPT Codes
 - b. AMA ICD9 and ICD10
 - c. MS-DRG Version 27
4. Medical Record Number (MRN): Each patient requires a unique MRN. This number can be manually assigned or populated via one of the interfacing features. It can be comprised of an alpha-numeric value. System included a number generation algorithym.
5. Additional (MRN): Each patient can have several unique MRN numbers recorded in the chart. These may reflect a hospital MRN, Nursing Facility MRN, etc.
6. System security: The system will be secured in accordance with HIPAA requirements. The system will incorporate User Access Control (UAC) and SSL encryption to meet these requirements.

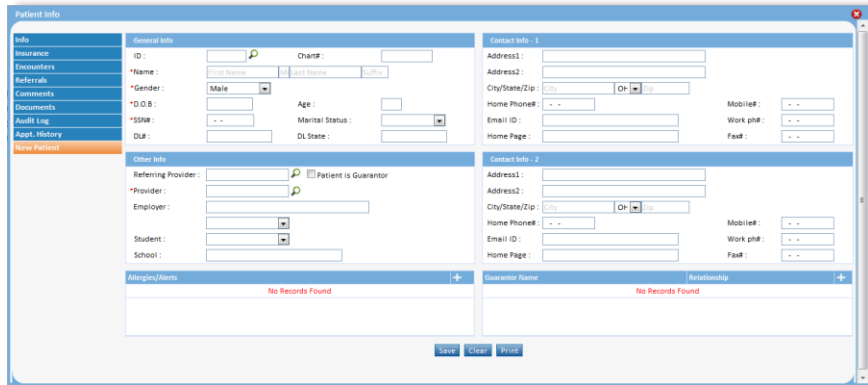


7. Report Handling: The system will facilitate the ability to accept external reports from third party systems via HL7 and B2B APIs. These reports include:
 - a. HL7 ORU – Radiology report
 - b. EDI 271 - Insurance verification
8. Event Reporting: The system will facilitate the ability to log and track patient alerts and Notes. The alerts are general statements about the patient such as known allergies or health conditions that the healthcare provider should be notified of. The notes allow for the documentation of other relevant patient information.
9. Browser Interfaces: The system will support multiple browser platforms such as Internet Explorer, Fire Fox, Safari, and Chrome.

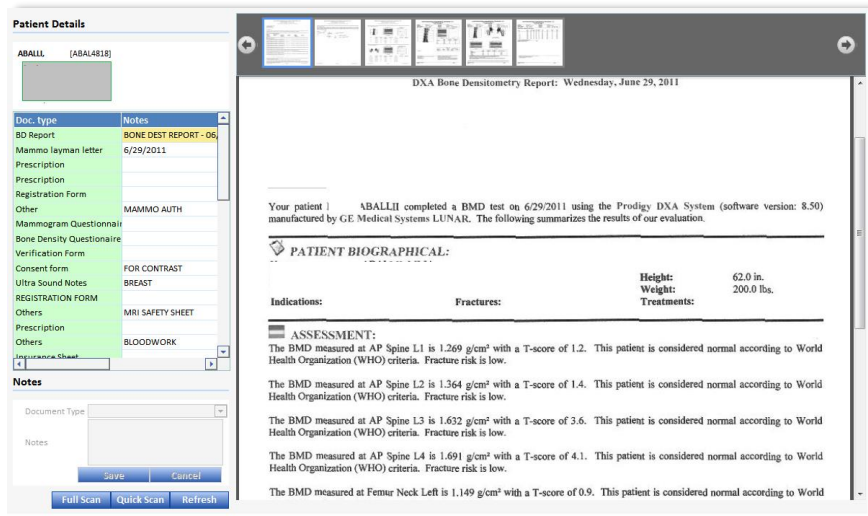


10. Patient Appointment Subsystem: The generation of an appointment can be accomplished via several vehicles within this subsystem. There is a traditional resource calendar, a next available appointment engine, and a quick scheduler.

11. Patient Demographic Subsystem: The patient's demographics are entered into a user friendly UI that utilizes the ability to search other subcomponents such as providers to speed up the data entry process. Mandatory fields can be configured at the enterprise level.



12. Document Archiving Subsystem: Web based document scanning allows for the archiving of patient records. Once in the system they are available for review and/or printing. The system is compatible with TWAIN based document scanners attached to the local workstation.



13. B2B Data Exchange Subsystem:
 - a. This subsystem allows for the receipt of radiology reports,
 - b. The ability to launch or incorporate components of the tracking system, and exchange data with third party systems via the B2B XML data files. Such as launching the Outcome screen, documents, and reports from the system.

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